

AI COMPUTER

## Running multiple neural networks

The CAN-enabled Boxer-8253AI PC from Aaeon is based on Nvidia Jetson Xavier NX SOC with a six-core 64-bit ARM processor.



*Boxer-8253AI enables AI-powered visual analysis to a range of applications from NVR surveillance systems to security checkpoint X-ray scanners, and further medical devices (Source: Aaeon)*

The six-core processor boasts 384 Cuda cores, 48 Tensor cores, and two Nvidia engines capable of running multiple neural networks in parallel. This delivers a computing performance of up to 21 Tera operations per second (TOPS). The system provides an 8-GiB onboard LPDDR4 memory and a 16-GiB onboard eMMC storage. The storage can be expanded using a micro-SD card, m-Sata module, or a 2,5-inch SATA III (6-Gbit/s) drive.

The controller features two POE (power over Ethernet) ports delivering up to 60 W of total power. The implemented HDMI in- and output allows users to add AI-powered (artificial intelligence) visual analysis to a range of applications from NVR (networked video recorder) surveillance systems to security checkpoint X-ray scanners, and further medical devices. Via device's Mini Card slot and M.2 2230 slot developers can add Wi-Fi and LTE (long term evolution) mobile radio functionality. Among others, the flexible I/O loadout includes a CAN interface, four USB 3.2 ports, and 13 digital I/O ports designed to connect with sensors, control

devices, and more. Four antenna openings, a power button, and an LED power indicator are provided as well.

Linux is the supported operating system. The 2,1-kg wall-mountable device dimensions 180 mm x 136 mm x 61 mm and can be powered with 12 V<sub>DC</sub> to 24 V<sub>DC</sub>. Operating temperature range of -15 °C to 55 °C is possible.

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